

Claims

1. A method for sending electronic mail, including separating at least one attachment from a text portion in an electronic mail message such that a link is created between said at least one attachment and said text portion;
delivering to a recipient said text portion separately from said at least one attachment; and
making said at least one attachment available from said text portion.
2. The method of claim 1, wherein said electronic mail message is composed by a first user at a sender device.
3. The method of claim 1, wherein said electronic message is delivered to a second user at a recipient device.
4. The method of claim 1, wherein said separating further includes caching said at least one attachment; and
creating said link within said text portion.

1 5. The method of claim 4, wherein said caching occurs at a location
2 relatively local to a first user when said caching is performed relatively local to a sender
3 device.

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5 6. The method of claim 5, wherein said location includes any combina-
6 tion of: (1) a sender device, and (2) a sender gateway.

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8 7. The method of claim 4, wherein said caching occurs at a location
9 relatively local to said recipient.

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11 8. The method of claim 7, wherein said location includes any combina-
12 tion of: (1) a recipient device, and (2) a recipient gateway.

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14 9. The method of claim 4, wherein said caching occurs at an Applica-
15 tion Service Provider.

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17 10. The method of claim 4, wherein a sender gateway and a recipient
18 gateway are the same device.

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20 11. The method of claim 4, wherein said link includes a hypertext link.

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22 12. The method of claim 1, wherein said delivering further includes

1 delivering said at least one attachment at a time other than when said text
2 portion is delivered;

3 using a non-email transfer protocol to deliver said at least one attachment;
4 and
5 selecting a preferred method for delivery.
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7 13. The method of claim 12, wherein said time is based on one or more
8 considerations of: (1) communications network load, (2) cost for delivery, and (3) request
9 by recipient to receive said at least one attachment.

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11 14. The method of claim 12, wherein said protocol includes File Trans-
12 fer Protocol or Hypertext Transfer Protocol.

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14 15. The method of claim 12, wherein said selecting further includes
15 probing the receiving device to ascertain at least one preferred format, at least one cach-
16 ing location, or at least one transfer protocol for delivery of said at least one attachment
17 and reformatting and transferring said at least one attachment using said at least one for-
18 mat, at least one caching location, or at least one transfer protocol responsive to said
19 probing.
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21 16. The method of claim 1, wherein said making further includes

1 publishing said at least one attachment at a location relatively local to a re-
2 cipient device;
3 initiating a fetch for said at least one attachment;
4 fetching said at least one attachment;
5 presenting said at least one attachment to said recipient; and
6 scanning said electronic mail automatically on a regular basis for one of
7 said links embedded in said electronic mail message and pre-fetching an associated at-
8 tachment to be cached at a location relatively local to a recipient device.

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10 17. The method of claim 16, wherein said publishing occurs at some
11 combination of: (1) a sender gateway, (2) an application service provider, and (3) a re-
12 cipient gateway.

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14 18. The method of claim 16, wherein said initiating is directed at some
15 combination of: (1) a sender gateway, (2) an application service provider, and (3) a re-
16 cipient gateway.

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18 19. The method of claim 16, where in said at least one attachment is lo-
19 cated at its cached location and transferred to said recipient device.

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21 20. The method of claim 16, wherein said at least one attachment has
22 been predownloaded to said recipient device.

1 21. The method of claim 16 wherein said scanning is performed by some
2 combination of: (1) a sender gateway, (2) an application service provider, and (3) a re-
3 cipient gateway.

4
5 22. A apparatus for sending electronic mail, including
6 means for separating at least one attachment from a text portion in an elec-
7 tronic mail message such that a link is created between said at least one attachment and
8 said text portion;

9 means for delivering to a recipient said text portion separately from said at
10 least one attachment; and

11 means for making said at least one attachment available from said text por-
12 tion.

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14 23. The apparatus of claim 22, wherein said electronic mail message is
15 composed by a first user at a sender device.

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17 24. The apparatus of claim 22, wherein said electronic message is deliv-
18 ered to a second user at a recipient device.

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20 25. The apparatus of claim 22, wherein said means for separating further
21 includes

22 means for caching said at least one attachment; and

1 means for creating said link within said text portion.

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3 26. The apparatus of claim 25, wherein said means for caching occurs at
4 a location relatively local to a first user.

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6 27. The apparatus of claim 26, wherein said location includes any com-
7 bination of: (1) a sender device, and (2) a sender gateway.

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9 28. The apparatus of claim 25, wherein said means for caching occurs at
10 a location relatively local to said recipient.

11 29. The apparatus of claim 28, wherein said location includes any com-
12 bination of: (1) a recipient device, and (2) a recipient gateway.

13 30. The apparatus of claim 25, wherein said means for caching occurs at
14
15 an Application Service Provider.

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18 31. The apparatus of claim 25, wherein a sender gateway and a recipient
19 gateway are the same device.

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21 32. The apparatus of claim 25, wherein said link includes a hypertext
22 link.

1 33. The apparatus of claim 22, wherein said means for delivering further
2 includes
3 means for delivering said at least one attachment at a time other than when
4 said text portion is delivered;
5 means for using a non-email transfer protocol to deliver said at least one
6 attachment; and
7 means for selecting a preferred method for delivery.
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9 34. The apparatus of claim 33, wherein said time is based on one or
10 more considerations of: (1) communications network load, (2) cost for delivery, and (3)
11 request by recipient to receive said at least one attachment.
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13 35. The apparatus of claim 33, wherein said protocol includes File
14 Transfer Protocol or Hypertext Transfer Protocol.
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16 36. The apparatus of claim 33, wherein said means for selecting further
17 includes means for probing the receiving device to ascertain at least one preferred format,
18 at least one caching location, or at least one transfer protocol for delivery of said at least
19 one attachment and means for reformatting and transferring said at least one attachment
20 using said at least one format, at least one caching location, or at least one transfer proto-
21 col responsive to said means for probing
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1 37. The apparatus of claim 22, wherein said means for making further
2 includes
3 means for publishing said at least one attachment at a location relatively lo-
4 cal to a recipient device;
5 means for initiating a fetch for said at least one attachment;
6 means for fetching said at least one attachment;
7 means for presenting said at least one attachment to said recipient; and
8 means for scanning said electronic mail automatically on a regular basis for
9 one of said links embedded in said electronic mail message and means for pre-fetching an
10 associated attachment to be cached at a location relatively local to a recipient device.

11 38. The apparatus of claim 37, wherein said publishing occurs at some
12 combination of: (1) a sender gateway, (2) an application service provider, and (3) a re-
13 cipient gateway.
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16 39. The apparatus of claim 37, wherein said means for initiating is di-
17 rected at some combination of: (1) a sender gateway, (2) an application service provider,
18 and (3) a recipient gateway.
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20 40. The apparatus of claim 37, where in said at least one attachment is
21 located at its cached location and transferred to said recipient device.
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1 41. The apparatus of claim 37, wherein said at least one attachment has
2 been predownloaded to said recipient device.

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4 42. The apparatus of claim 37, wherein said means for scanning is per-
5 formed by some combination of: (1) a sender gateway, (2) an application service pro-
6 vider, and (3) a recipient gateway.

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